

INSTITUTE DATA

FORUM PARTICIPANT

Han, Zhanxian

INSTITUTE NAME

Tianjin Fire Research Institute

INSTITUTE AFFILIATIONS

Ministry of Security

POSTAL ADDRESS

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LOCATIONS

Tianjin, China

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ENTRY DATE

April 1996

STAFF NUMBERS

240 technical workers:
13 senior researchers
72 associate researchers
120 engineers
35 assistant engineers

FUNDING

RMB ¥30,000/person

CAPABILITY STATEMENT

STRATEGIC OBJECTIVES OF RESEARCH

- To increase the knowledge of fire science and engineering, fire cause identification, fire extinguishing agents, fire resistant materials, fire prevention and codes.
- advancement of science and technology of testing standards and practices.

CAPABILITY AREAS

- Fire Theory
- Fire investigation and cause analysis
- Fire extinguishing agents
- Fire and flame retardants
- Active fire protection systems
- Fire resistant materials and systems
- Fire safety engineering technology
- Fire codes and standards
- Fire statistics and analysis

SPECIAL FACILITIES

- Test lab for fire resistance of building components
- Large scale fire test lab
- Apparatus with MW level calorimeter for testing water extinguishing systems
- Equipment for testing building explosion venting
- Fire tests of oil storage tanks and systems

RESEARCH PROGRAM

RESEARCH PROJECTS (Titles and Objectives)

- Fire prevention and suppression technology for high-rise buildings
- Fast response sprinkler (water) system
- On-off (cycling) sprinkler system
- Fire compartment elements for building
- Reaction to fire testing of materials and systems
- Full-scale test and modeling of oil tank fires, room/corner fires, and furniture fires.
- Fire codes and standards
- Explosion venting
- Extinguishing agents
- Dust explosions

COLLABORATION

INTERNATIONAL LINKS

- China-Japan joint test of oil tank fire fighting
- China-Canada joint project on Fire Resistance Evaluation for Housing

NEAR TERM RESEARCH

- Fire behavior in underground and large space construction
- Establish large space facilities for ESFR and other new sprinkler technology
- Transfer technology to industry and engineering
- Review Code for Water Sprinkler System Design

FIVE YEAR RESEARCH PROGRAM

- Fire prevention and control for underground facility
- Fire prevention and control for large space
- Water mist systems
- Halon substitutes
- Water sprinklers, smoke management, and new extinguishing agents